

This is the only monstrosity of its kind on this species which has come to my notice. It is of interest to note the resemblance of fruit and joint in such cylindrical opuntias as the cholla (*O. fulgida*), in which there occurs normally and year after year a budding-out from fruits in manner apparently quite like the branching of the joints of the plant. As a consequence of this proliferation and where undisturbed the fruits of cholla are very numerous, forming large clusters. In other opuntias also the fruits bear both spines and prickles and in this habit they recall the purely vegetative part of the plant. Whether, however, the peculiar fruit of the prickly pear above described is to be considered as indicating a caulomic tendency as exhibited by cholla and in other ways by other opuntias might be questioned.*

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REVIEWS

Christensen's Index Filicum†

The lack of a satisfactory index to the species of ferns has been one of the greatest drawbacks to the systematic study of this group of plants. Moore's attempt‡ in the early sixties proved unsatisfactory and incomplete, since the printing ceased before the genera commencing with the letter G were completed. The parts that were published are not sufficiently exact for present day citation, since dates of publication were rarely given. Salomon's Nomenclator§ was carried through the alphabet but was incomplete at best and gave no citations whatever, thus proving a scarcely useful list of mere names. The need of a thorough index has been so much the more keen (1) since

* Compare also the sketch of *Opuntia Ficus-indica* in Engler & Prantl's Die Natürlichen Pflanzenfamilien, 3^{6a}: 170, in which the fruit is shown sending out roots and new shoots quite like the joints of the plant.

† Christensen, C. Index Filicum, sive enumeratio omnium generum specierumque Filicum et Hydropteridum ab anno 1753 ad annum 1905 descriptorum adjectis synonymis principalibus, area geographica, etc. Hafniae 1905 apud H. Hagerup. [Price 3s. 6d. per fascicle.]

‡ Moore, T. Index Filicum. London, 1857-1863.

§ Salomon, C. Nomenclator der Gefässkryptogamen. Leipzig, 1883.

Hooker & Baker's *Synopsis Filicum* (1867-74), by omitting most synonyms and most species not represented in the Kew herbarium, does not account for more than two thirds of the species now recognized as valid from among those published before 1874; and (2) because the unwonted activity in fern study in the last generation has resulted in adding nearly two thirds as many more species to the list as were recognized in 1874. Baker* attempted to supply this latter deficiency in 1891 in a list of about 1,100 species described between 1874 and 1891, but these were arranged in accordance with the Kew conception of specific sequence, instead of alphabetically, and the work has always been difficult for rapid consultation. Since 1891 more species have been described than in any corresponding period since species-writing commenced.

At last, we have the beginning of a modern, accurate index of the orders Ophioglossales, Marattiales, and Filicales, and the five fascicles (320 pages) already published promise to furnish a much more valuable reference book for the fern students than the corresponding *Index Kewensis* has proved for students of the higher plants, largely because it is being prepared by a fern specialist who is familiar not only with fern literature but with ferns themselves. It gives in alphabetical sequence all names published under each genus, using practically the American system of citation and referring synonyms to the proper genera in the same line. From an American standpoint, the work lacks only one element to make it complete and that is the citation of the type collection number or type locality of the original species described, but this was too much to expect from a European standpoint since the importance of the problem of type localities has not yet permeated European taxonomy as it is sure to do in the near future.

The work is an essential to every student of ferns, and should be in every botanical library. It is the more important that friends of botany should see that subscriptions are placed in

* Baker, J. G. A summary of the New Ferns which have been discovered or described since 1874. Oxford, 1892. [Originally published in *Annals of Botany*, 5: 181-221, 301-332, 455-500. 1891.]

public and college libraries since the publication is undertaken as a personal venture by Herr Christensen and up to date, only sufficient subscriptions are received to pay for one half the actual expense of printing and its completion is dependent on doubling the present list of subscribers.

The nomenclature is mainly a rational one, following largely *Die natürlichen Pflanzenfamilien* but giving attention to more recent monographic work. It will probably shock some of our more conservative (?) fern students that he takes up *Dennstaedtia*, *Cyclophorus* (for *Niphobolus*), and (following Professor Urban's example from Berlin) *Dryopteris* for *Nephrodium*. Some of the larger genera may prove a surprise in the number of species listed under them, as, for example, *Acrostichum* 750,* *Adiantum* 520, *Alsophila* 380, *Aspidium* 1,400, *Asplenium* 1,600, *Davallia* 360, etc. This will also give some idea of the magnitude of the accurate, painstaking and indispensable work for which the whole fern world is under an eternal debt of gratitude to Herr Christensen.

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COLUMBIA UNIVERSITY,
Dec. 14, 1905.

PROCEEDINGS OF THE CLUB

OCTOBER 25, 1905

The Club met at the New York Botanical Garden, with Professor Underwood in the chair and 18 persons present.

The following new members were elected: Dr. C. Stuart Gager, Morris High School; Mrs. Robert T. Morris, 152 West 57th St.; Miss Pauline Kaufman, 173 East 124th St.; Miss Daisy Levy, 329 West 83d St.; Mrs. Henry Dinkelspiel, 254 West 88th St.; Dr. Charles C. Godfrey, 340 State St., Bridgeport, Conn.

The announced program consisted of "Further Remarks on the Vegetation of the Bahamas," by Drs. N. L. Britton and C. F. Millspaugh.

* These are given in round numbers and of course include many species now referred to other genera and many more synonyms of other species in the list. Of the 750 listed under *Acrostichum* only three are printed in the bold-face type which indicates species which still stand under the genus.